

RECLAMATION

Managing Water in the West

Operations & Maintenance Considerations

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U.S. Department of the Interior
Bureau of Reclamation

Fencing

- Fences keep people out but also make it difficult for O&M staff to access the canal
- Fences can also keep people in
 - Public safety
 - Ladders can be an attraction
- Animals
- Fences must be tolerable for maintenance but adequate for public safety

Trash Vandalism

- Increased clean-up, trash / graffiti
- Trash rack
- Street sweepers
- Skimming operations
- Dredge / clean bottom of canal
- Canal dumping (cars?)

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Water Quality

- Very clean
- Monitoring for silt
- Healthy fish population – fishing is popular (but potentially hazardous)

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Operations

- Must have access for inspections at all times
- Concrete lake – not a river (temperatures)
- Check gates at Laguna Creek and Deer Creek
- Water level changes < 1 foot
- 50 ft³/sec flow - 100 acre-feet/day
- 1.4% capacity (total capacity 3500ft³/sec, current capacity is 60 ft³/sec)

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Canal Dimensions

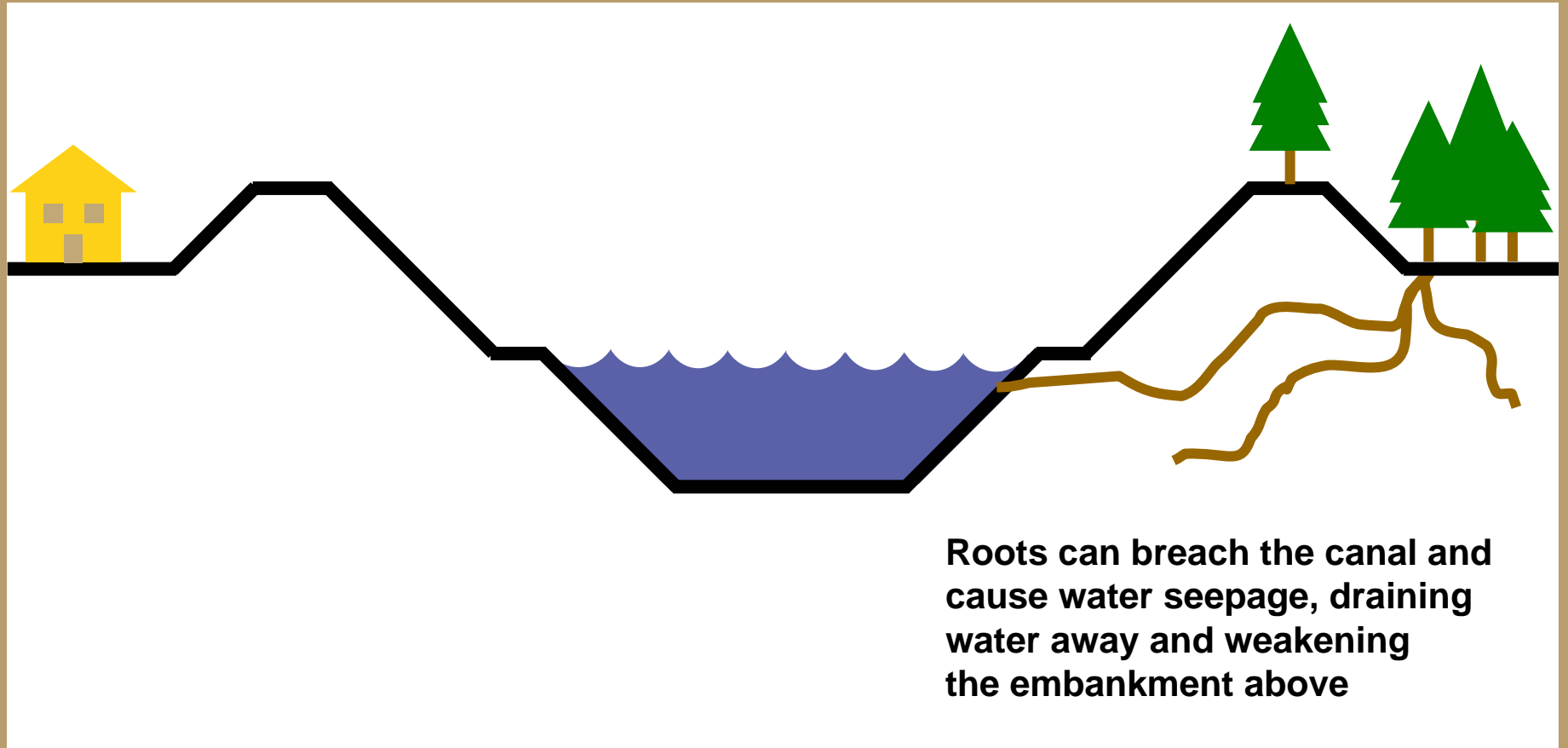
- Design capacity 3500 ft³/sec or 2261 million gallons per day (MGD)
- Sides are at a slope of 1.5:1
- Water depth 17.8 feet
- Bottom width 34 feet
- Canal length 26.7 miles total
- Upper reach is approximately 14.6 miles long

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Vegetation

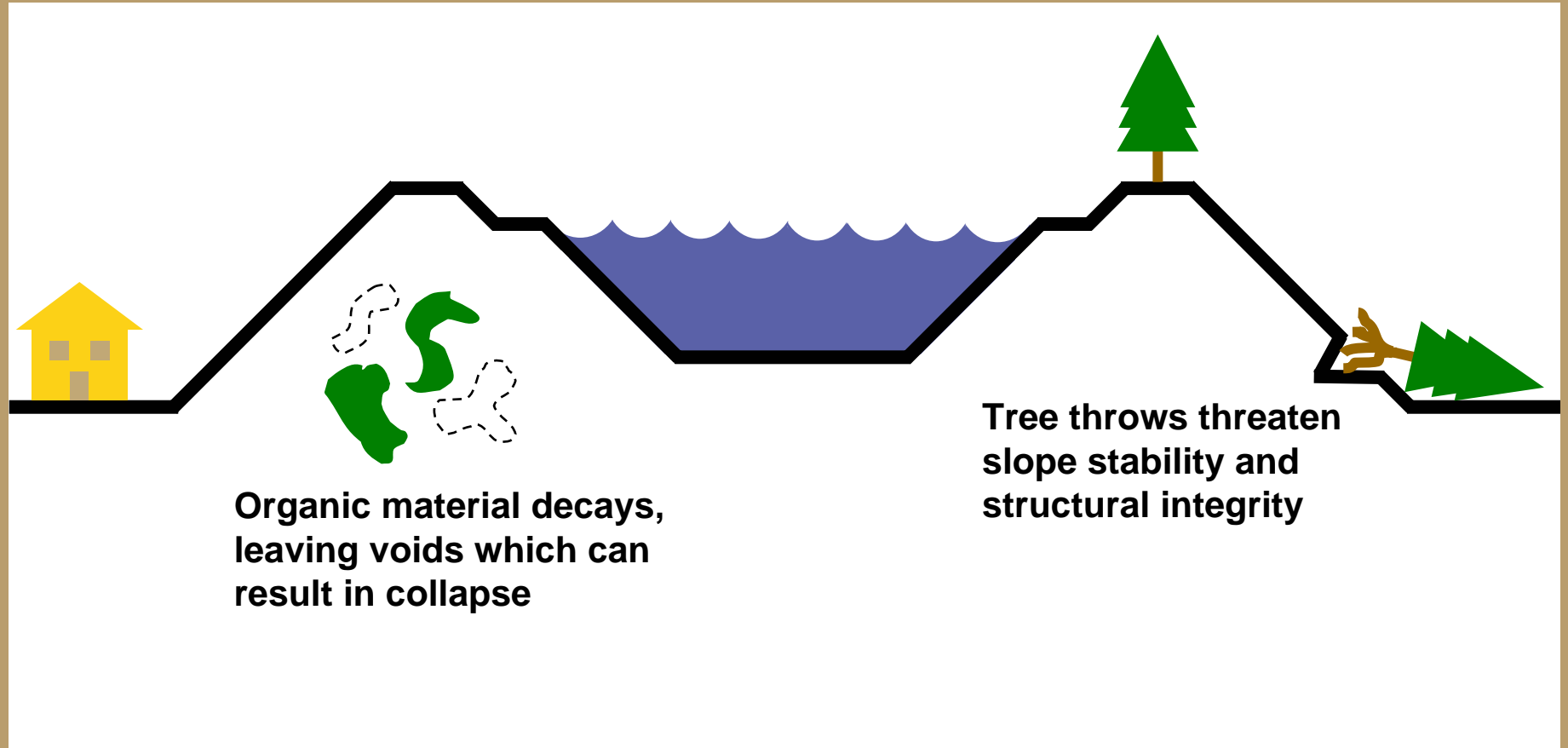
- Drip line of trees should not touch facilities
- Tree throws threaten slope stability and structural integrity
- Roots seek water and can create voids or enlarge cracks or otherwise damage the canal lining
- Organic material creates voids

Canal below surface level (Raised embankments)



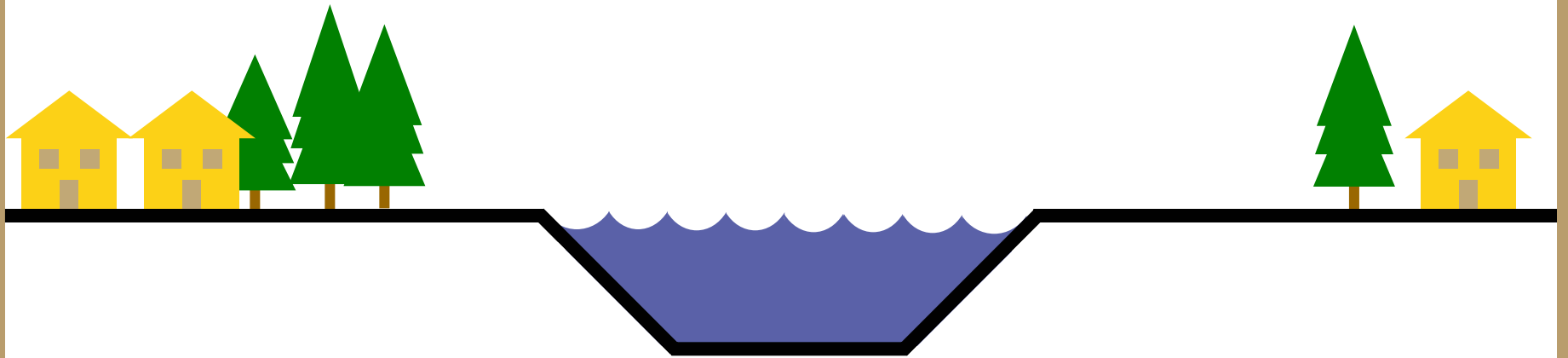
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Canal above surface level (Raised embankments)



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Canal below surface level (No embankments - ideal)



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Public Safety and Security

- Double fencing
- 24 x 7 security
- Attraction to kids
 - Fishing
 - Swimming
 - Throwing rocks, garbage, debris into the canal
- Rapid growth

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Questions and Answers



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